UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,951	02/18/2004	J. Rodney Walton	040235	4445

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QUALCOMM INCORPORATED
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EXAMINER
ALIA, CURTIS A

ART UNIT	PAPER NUMBER
2474	

NOTIFICATION DATE	DELIVERY MODE
05/20/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Advisory Action *Before the Filing of an Appeal Brief*	Application No. 10/781,951	Applicant(s) WALTON ET AL.
	Examiner Curtis A. Alia	Art Unit 2474

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>30 April 2010</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

  a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

  b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

    Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

  (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

  (b)☐ They raise the issue of new matter (see NOTE below);

  (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

  (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

  The status of the claim(s) is (or will be) as follows:

  Claim(s) allowed: _____.

  Claim(s) objected to: _____.

  Claim(s) rejected: *1-23 and 63*.

  Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2474

/Curtis A Alia/
Examiner, Art Unit 2474

Continuation of 11. does NOT place the application in condition for allowance because:

In response to Applicant's argument that Trikkonen fails to teach "demultiplexing pilot symbols and the block of data symbols onto a plurality of subbands to obtain, for the data packet, a plurality of sequences of pilot and data symbols for the plurality of subbands," the Examiner respectfully disagrees. In particular, Trikkonen teaches a MIMO (multi-input multi-output) system for transmitting data across multiple antennas in a wireless network. A plurality of pilot/training and data symbols are transmitted by a transmitter acros multiple antennas (MSAA) and are received by a base station that receives all of the pilot/training and data symbols, which then must be separated, downconverted, recombined and have other processes performed on them to return them to their original digital form (see paragraphs 60-61). Since the base station is receiving multiple signals at any given time, and must perform processing techniques to separate the data streams, a demultiplexing procedure is performed. The plurality of data symbols are modulated at the transmitter in such a way that they do not interfere with one another (by use of diversity processing, e.g. FDM, TDM, CDMA), where FDM uses a plurality of frequency subbands for orthogonal transmission of the various data symbols (see paragraph 99). Therefore, Trikkonen teaches that a plurality of data symbols and training/pilot symbols are transmitted on various frequency subbands, and that these symbols must be demultiplexed/separated from a combined stream so as to obtain multiple pilot symbols and multiple data symbols at a receiver.

In response to Applicant's argument that Onggosanusi does not teach that spatial processing is performed on at least one of the pilot and data symbols for each subband with at least one steering vector selected for the subband, the Examiner respectfully disagrees. In particular, Onggosnusi teaches transmitting data across multiple antennas, where the data is transmitted using a subchannel (subband) index value and beamformer value. Beamforming is spatial processing, and paragraph 41 indicates that for each transmission, a specific value for a beamformer vector and a specific value for a frequency index (subband) is selected. Therefore, it is the Examiner's position that the broadest reasonable interpretation of the claim and taking into account the disclosure of Onggosanusi, that Onggosanusi discloses the argued limitation because a steering vector (beamformer vector) is selected for a particular subband (frequency index).